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ABSTRACT

This report summarizes a course evaluation for an intermediate career education course. Objectives of the course were: (1) perceptualization: self- and environmental orientations; (2) conceptualization: directional choice and adaptive behavior; and (3) generalization: accommodation, satisfaction and mastery. The primary basis for the evaluation was the students' achievement on an extensive course test which is appended. The course pretest was administered to 734 students; the post-test to 611 students. The tests were then scored, item analyzed, and statistically summarized. Results indicate significant knowledge improvement related to taking the course. (Author/HMV)

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An Evaluation of the Career Development Course Intermediate Level

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April, 1975

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An Evaluation of the Career Development Course Intermediate Level

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Abstract

(p.2) The philosophy of the Comprehensive Guidance Program to which this Career Development course subscribes is "to foster maximum development of individual potentials through providing school-wide assistance to youth in the choices, decisions, and adjustments each must make as he moves toward maturity."

(p.3) These content features of the curriculum guide, which make it an excellent source guide, also require that the teachers make a preliminary selection of specific course content.

(p.3) Inasmuch as the counselor's supplementary role is not specified in the course guide this participation would also required previous planning.

(p.4) If the Career Development course and the Career continuum are complementary approaches to career education then the department chairman in the subject fields, the teachers of the Career Development course, and the school counselors should jointly plan the curriculum at the school level.

(p.5) In summary, the analysis of the pre-post changes on the course tests indicated statistically significant knowledge improvements.

(p.14) The ten easy pretest items represent knowledge which approximately 85 percent of the students had acquired prior to their entrance to the course .. should be considered for deletion from course and test content."

(p.21) ... the course test is primarily a test of concepts, vocabulary and informational knowledge ... Measures of the specific skills which the students develop during the course, and ratings of their attitudinal growth should be obtained in further course evaluations.

(p.22) It is recommended that the administrative and curricular questions be considered by school administrators and staff specialists in guidance and curriculum.

(p.22) There was a general accord among the teachers in regard to the course objectives and subobjectives.

(p.23) In discussing the attainment of affective objectives the teachers consistently referred to the students' interests and motivation, which were generated by the socially realistic and personally relevant learning experiences ... The job application skills ... were consistently identified as realistic, meaningful learning.

(p.24) Different materials and approaches were used in the four schools to help students acquire educational planning and social decision skills.

The teachers also varied in the extent to which the course was student-centered using individual learning packets, or teacher-centered, using group instructional activities.

(p.25) More of the students after taking the Career Development course are requesting counselors' assistance. The counselors are not involved in team teaching with the Career Development teachers, however, and they do not serve group guidance functions within the classes.

(p.25) Perhaps some of the summer in-service education could include professional teaming and role exchanges of counselors and teachers.

(p.26) ... there were various interests, motivations and skills achievements that were not specifically evaluated in the course.

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An Evaluation of the Intermediate Level Career Education Course

Introduction

The intermediate career education course provides content in the following areas: Self Appraisal, Occupational Exploration and Educational Planning. The general objectives and subobjectives for guidance, to which this course is directed are: 1. Perceptualization: Self- and Environmental Orientations 2. Conceptualization: Directional Choice and Adaptive Behavior, and 3. Generalization: Accomodation, Satisfaction, and Mastery.

The curriculum guide for the Career Development course provides outlines for twenty-one group discussion topics, and ninety individual guidance learning packets: thirty Self-Appraisal units, thirty Occupational Exploration units, and thirty Educational Planning units. A list of the group discussion and learning packets is appended to this report.

An extensive catalog of instructional materials, books, and tapes, film strips, pamphlets, games, and equiptment, indexed for the Self-Appraisal, Occupational Exploration and Educational Planning units supplements the curriculum guide. The comprehensive guidance course test which was used for this course evaluation, is included in the appendix to the curriculum guide.

The primary basis for this evaluation will be the students; achievement on the course test. Secondary evaluations will be based on the teachers opinions of their presentation of the course, and on a content review of the curriculum guide.

Content Review:

The major purposes and learning objectives for the Career Development course were identified in the introduction. Beginning in 1972-73 the course was designated as a required semester's course at the intermediate level. Its implementation in the schools was dependent on the availability of instructional support funds.

The philosophy of the Comprehensive Guidance Program to which the Career Development course subscribes, is "to foster maximal development of individual potentials through providing school-wide assistance to youth, in the choices, decisions, and adjustments each must make as he moves toward maturity". (p.xiii) The Career Development course was conceptualized as part of the intermediate school curriculum. The role of the school counselor was viewed as a supplementary role through providing "scheduled informational guidance activities through small- and large-group discussions" (p. xiv).

The curriculum task force anticipated that the students would spend more than half of their time working on individual learning packets of their own choosing, and the remainder of the time in discussion activities. The philosophy of individual differences, that "student maturation and development toward educational and vocational decision-making, which does proceed in an orderly and somewhat predictable fashion, does not advance at the same rate for all students" (p. xii) was stated in the curriculum guide as a foreword to the teacher.

Inasmuch as there are twenty-one discussion topics and ninety individual learning packets, each of which would require a minimum of 30 to 40 minutes of class time and most of which might also require 4 to 5 hours of class

time, the curriculum guide should perhaps be identified as a source guide rather than as a specific course guide. There are extensive instructional activities and materials, e.g. audio tapes, film strips, reading materials, written assignments, field trips and possible resource speakers, suggested for each of the group discussion topics and individual learning packets. The learning packets were planned so that each could be completed in one class period; however, the topics might also sustain students' interests for longer periods. The group discussions could be completed in one class period; however, if they required students' reading to obtain background information, viewing film strips or movies, taking interest or aptitude tests, making field trips or scheduling resource speakers, in addition to the actual students discussion, than these units would also require more class periods. Some of the activites and subtopics in the group discussion outlines are also included in individual learning packets. These content features of the curriculum guide, which make it an excellent source guide, also require that the teachers make a preliminary selection of specific course content. Inasmuch as the councelor's supplementary role is not specified in the course guide this participation would also require previous planning.

One of the basic definitions of a curriculum is the students' school experiences. This content review of the Career Development curriculum guide discloses a basic issue in career education. The curriculum guide for the Hawaii Career Development continuum (Grades 7-9) suggests a variety of learning experiences, tasks, and materials to be used within Physical Education, Social Studies, Art, English, Science, Mathematics, Home Economics, Industrial Arts, Typing and Health courses. The goals of self realization,

economic efficiency, social relationships and civic responsibilities which are stated for the Continuum are similar to the self exploration, occupational exploration and educational planning objectives of the Career Development course. Some of the instructional activities and materials are listed in both the Continuum and the Career Development guides. At the present time there is no systematic procedure for identifying what career education experiences the students will receive in their Social Studies, Science, English, Mathematics or other courses, and what experiences they will receive in the Career Development course. If the Career Development course and the Career continuum are complementary approaches to career education then the department chairman in the subject fields, the teachers of the Career Development course and the school counselors should jointly plan the curriculum at the school level. Both the within-subjects and the special course approaches have been endorsed and recommended for career education. Surveys of the students' course experiences in the within-subjects approach, and the combined within-subjects and special career-course approach, should be compared to obtain a more comprehensive evaluation of career education at the intermediate level. The teachers' opinions of the values of the Career Development course will be presented later in this report.

Course Test Results

The course test was administered as a pretest to 734 students. The numbers of students receiving the pretest at each of the four schools are as follows: 104 at Campbell H.S., 287 at Castle H.S., 108 at Jarrett Intermediate, and 235 at Waipahu H.S. The course test was administered as a post

test to 611 students; 105 at Campbell H.S., 204 at Castle H.S., 112 at Jarrett Intermediate, and 190 at Waipahu H.S. There were fewer class sections in the post test groups at Waipahu and Castle High Schools.

The course pre- and post tests were scored, item analyzed, and summary statistics for the two distributions of scores were computed. These data analyses and listings of students' scores were sent to the participating schools. A previous version of the course test was erroneously administered as a pretest at Castle High School. Twenty of the items in this pretest were not scored; so the pre-post score differences for the tenth grade students at Castle H.S. could not be included in the course evaluation. The revised version of the course test was used in the post testing at the four schools.

There was a total of 417 students in the post testing at Campbell H.S., Waipahu H.S., and Jarrett Intermediate. Matching these with the pretest data yielded 352 pre-post pairs which were used in this analysis of the course effects.

In summary, the analysis of the pre-post changes on the course tests indicated statistically significant knowledge improvements. This improvement was effectively demonstrated on 48 of the 67 test items. Ten of the pretest items were identified as "easy" items with 80 to 93 percent success; and nine of the post test items were identified as "difficult" items, with 55 to 67 percent failure persisting after completion of the course.

Summary statistics and t values from the Pre- and post test data are presented in table 1. The t test for correlated means indicate significant pre-post changes for the course test at Campbell H.S. ($t = 2.53$, $p < .01$); at Jarrett Intermediate School ($t = 10.45$, $p < .01$); and at Waipahu High School

Table 1

Summary Statistics and 't' Values for the Pre- and Post Test Data

School	Pretest			Post Test					
	N	Mean	S.D.	N	Mean	S.D.	r	't' value	Sig.
Castle	173	31.6	7.15	173	45.0	11.9[illegible]			
Campbell	94	40.5	9.88	94	42.4	10.19	0.74	2.530	< .01
Jarrett	94	40.0	10.79	94	48.0	10.97	0.77	10.452	< .01
Waipahu	164	38.8	11.33	164	43.0	12.51	0.79	6.870	< .01
Total	352	39.[illegible]	10.81	352	44.2	11.72	0.76	10.977	< .01

(t = 6.87, $p < .01$). The t value for the pre-post difference on the total group for the three schools is also significant (t = 10.97, $p < .01$). Plots of the pre- and post means are charted in figure 1. The curves for the distributions of pre- and post test scores are plotted in figure 2.

The correlation of the pre- and post test score distributions was .76. This correlation indicates that more than 50 percent of the variance on the distribution of post test scores was due to the pretest performance and, conversely, that less than half of the variance on the post test was due to course effects or other intervening knowledge. The high pre- and post test correlation is due to the consistency of success on the easy items, and to the persistence of failure on some of the difficult items.

Table 2 presents the correlations between item success and total scores of the pretest data. The ranges of correlations, Castle, .08-.53, Campbell, .00-.57, Jarrett, .03-.59, and Waipahu, .02-.53, are similar. The correlations of successes on items 7, 10, 11, 12, 13, 19, 25, 29, and 36 with the total test scores are consistently higher than other item and total score correlations at the four schools. Correlations between item responses on items 31, 42, 47, 59, and 65 and total scores were consistently lower than other item and total score correlations. This may indicate lower item reliabilities, or these items may be assessing an independent type of knowledge, not assessed by the other items in the test.

Table 3 presents the correlations between the item and total scores of the post test data. The ranges of correlations, Castle, .03-.55, Campbell, .03-.59, Jarrett, .08-.66, and Waipahu, .03-.62, are similar. High correlations were consistently obtained between items 5, 12, 19, 21, 23, 25, 51, and

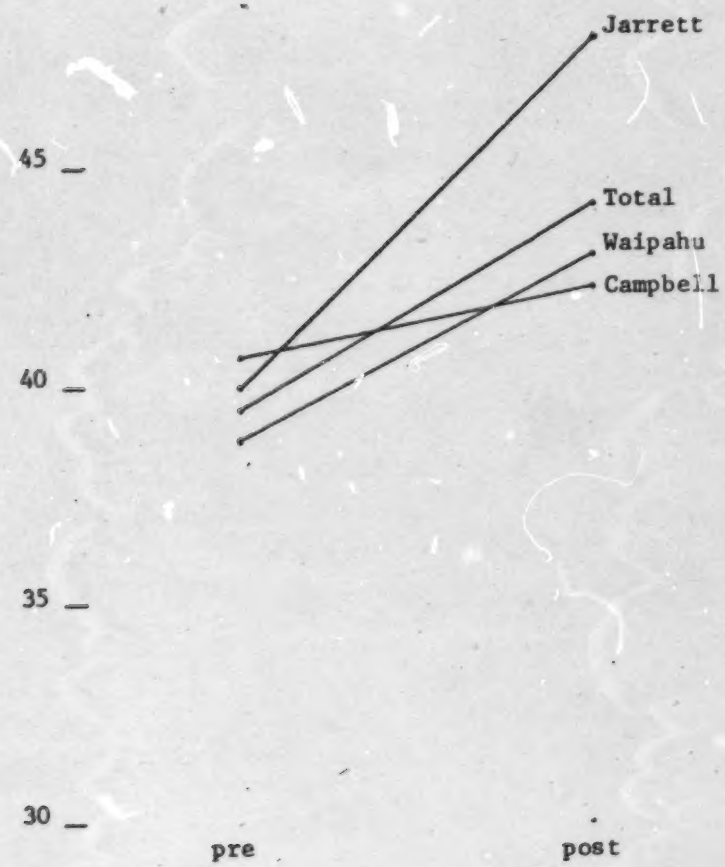
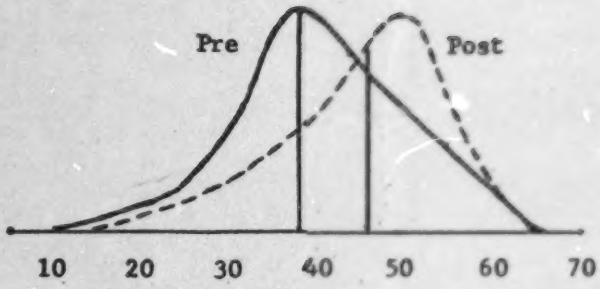
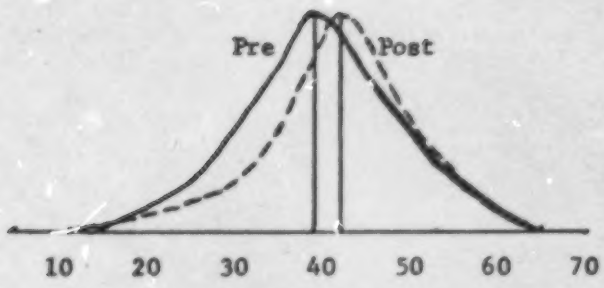


Figure 1. Plots of school means on pre- and post test scores



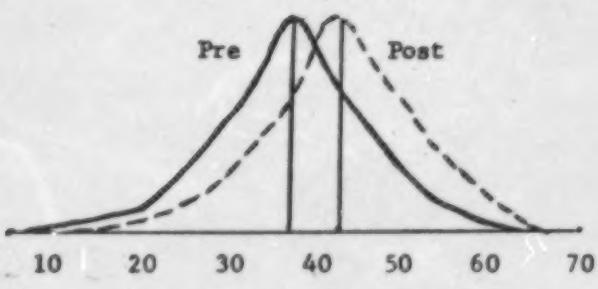
$\bar{X}_1 = 33.8$ $\bar{X}_2 = 45.8$

Jarrett



$\bar{X}_1 = 39.7$ $\bar{X}_2 = 42.2$

Campbell



$\bar{X}_1 = 37.4$ $X_2 = 42.6$

Waipahu

Figure 2. Distribution curves of the pre- and post test scores

Table 2

Correlations of the Career Course Test Items with Total Pretest Scores

Item	Castle	Campbell	Jarrett	Waipahu	Total without Castle
	r with Total	r with Total	r with Total	r with Total	r with Total
1	.19	.40	.25	.34	.28
2	.46	.27	.27	.47	.37
3	.39	.34	.24	.45	.35
4	.26	.23	.47	.32	.35
5	.44	.41	.52	.46	.47
6	.41	.40	.43	.53	.43
7	.39	.52	.46	.51	.50
8	.29	.28	.48	.40	.40
9	.37	.28	.49	.47	.44
10		.42	.48	.46	.46
11		.52	.50	.48	.50
12		.58	.55	.50	.53
13		.56	.39	.50	.48
14		.35	.22	.36	.30
15		.43	.33	.29	.33
16		.28	.37	.21	.27
17		.27	.20	.32	.28
18		.39	.16	.43	.35
19		.52	.57	.48	.51
20		.24	.27	.30	.27
21		.50	.60	.43	.49
22		.17	.31	.26	.25
23		.42	.48	.48	.47
24		.41	.34	.34	.36
25		.44	.53	.51	.50
26		.38	.43	.29	.35
27		.40	.55	.44	.46
28		.43	.51	.35	.41
29		.57	.65	.52	.56
30	.23	.29	.48	.32	.36
31	.23	.12	.13	.13	.12
32	.53	.42	.36	.50	.44
33	.31	.15	.31	.30	.27
34	.34	.36	.40	.40	.39
35	.43	.56	.55	.36	.45
36	.39	.52	.59	.50	.53
37	.42	.32	.43	.44	.41
38	.43	.27	.38	.38	.34
39	.45	.45	.40	.44	.44
40	.41	.33	.55	.36	.40

(continued on next page)

Table 2 (continued)

Item	Castle	Campbell	Jarrett	Waipahu	Total without Castle
	r with Total	r with Total	r with Total	r with Total	r with Total
41	.24	.21	.42	.31	.31
42	.26	.17	.23	.11	.15
43	.25	.35	.58	.33	.39
44	.50	.39	.45	.44	.42
45	.34	.24	.24	.22	.23
46	.43	.30	.28	.33	.31
47	.11	.00	.03	.18	.10
48	.41	.49	.46	.34	.40
49	.45	.38	.45	.32	.37
50	.43	.27	.41	.10	.22
51	.53	.44	.42	.42	.43
52	.44	.42	.59	.42	.46
53	.32	.46	.49	.37	.41
54	.53	.54	.56	.47	.51
55	.31	.28	.32	.25	.27
56	.50	.38	.20	.31	.30
57	.27	.28	.24	.33	.31
58	.52	.30	.46	.42	.41
59	.23	-.05	.00	-.05	-.03
60	.39	.23	.23	.35	.30
61	.24	.19	.16	.21	.19
62	.43	.34	.33	.35	.35
63	.41	.51	.26	.45	.43
64	.34	.34	.29	.23	.27
65	.08	.05	-.07	.02	.01
66	.46	.37	.11	.40	.32
67	.38	.21	.18	.21	.21

Table 3

Correlations of the Career Course Test Items with Total Post Test Scores

Item	Castle	Campbell	Jarrett	Waipahu	Total
	r with Total	r with Total	r with Total	r with Total	r with Total
1	.46	.24	.36	.43	.38
2	.45	.37	.23	.46	.40
3	.45	.19	.39	.48	.40
4	.29	.07	.39	.30	.28
5	.46	.59	.40	.54	.50
6	.55	.50	.29	.53	.49
7	.45	.45	.44	.54	.48
8	.44	.28	.28	.51	.41
9	.46	.36	.36	.56	.46
10	.36	.28	.34	.42	.37
11	.39	.35	.54	.56	.46
12	.53	.58	.44	.59	.55
13	.54	.41	.36	.53	.49
14	.40	.27	.41	.44	.40
15	.40	.46	.42	.34	.40
16	.37	.51	.37	.36	.39
17	.35	.37	.36	.41	.37
18	.38	.39	.39	.40	.40
19	.46	.54	.53	.53	.51
20	.25	.35	.42	.35	.34
21	.53	.61	.54	.44	.52
22	.29	.40	.35	.27	.31
23	.51	.51	.55	.61	.55
24	.49	.51	.37	.58	.49
25	.59	.43	.58	.53	.54
26	.44	.37	.63	.33	.44
27	.54	.47	.54	.43	.49
28	.50	.56	.64	.33	.49
29	.41	.43	.59	.53	.49
30	.48	.36	.52	.41	.45
31	.27	.03	.16	.18	.19
32	.43	.43	.35	.50	.42
33	.42	.14	.41	.39	.36
34	.34	.18	.54	.42	.38
35	.55	.41	.49	.49	.49
36	.49	.49	.57	.43	.48
37	.40	.28	.46	.48	.41
38	.33	.36	.36	.49	.38
39	.36	.39	.55	.44	.43
40	.40	.45	.53	.35	.40

(continued on next page)

Table 3 (continued)

Item	Castle	Campbell	Jarrett	Waipahu	Total
	r with Total	r with Total	r with Total	r with Total	r with Total
41	.25	.26	.47	.32	.32
42	.29	.09	.3[illegible]	.17	.24
43	.35	.33	.52	.33	.37
44	.48	.29	.51	.34	.41
45	.23	.39	.23	.27	.26
46	.27	.32	.35	.42	.33
47	.07	.04	.33	.45	.24
48	.48	.46	.62	.48	.49
49	.48	.42	.43	.42	.43
50	.34	.25	.57	.31	.37
51	.52	.33	.55	.62	.52
52	.54	.40	.66	.45	.51
53	.37	.20	.45	.37	.36
54	.45	.54	.55	.41	.46
55	.42	.27	.38	.38	.37
56	.43	.41	.53	.42	.45
57	.45	.15	.42	.36	.37
58	.52	.43	.59	.40	.48
59	.13	.08	-.08	-.03	.03
60	.46	.44	.49	.49	.46
61	.23	.26	.26	.33	.30
62	.36	.43	.39	.43	.40
63	.48	.41	.54	.38	.44
64	.40	.42	.27	.19	.30
65	.03	-.07	.20	.05	.04
66	.43	.25	.35	.29	.33
67	.42	.16	.16	.23	.26

52 and total scores. Low correlations were obtained between items 31, 42, 47, 59, and 65 and total scores. The items which yielded low reliabilities in the post test data are identical to those yielding low reliabilities in the pre-test data.

Table 4 presents the item difficulty levels on the pretest data. The range of difficulty levels are, Castle, .12-.96, Campbell, .18-.96, Jarrett, .16-.94, and Waipahu, .21-.91. In an inspection of the total column, the most difficult items were: 15, 16, 17, 18, 22, 28, 32, 37, 38, 42, 47, and 59. The difficulty levels of these items range from .13 to .36. The least difficult items were items 4, 5, 6, 25, 30, 34, 55, 57, 58, and 63. The difficulty levels of these items range from .80 to .93. The ten easy pretest items represent knowledge which approximately 85 percent of the students had acquired prior to their entry into the course. These items, which should be considered for deletion from the course and test content are listed in table 5.

Table 6 presents the item difficulty levels on the post test data. The range of difficulty levels are, Castle, .23-.96, Campbell, .19-.95, Jarrett, .19-.95, and Waipahu, .30-.93. In an analysis of the total column, the least difficult items were items 4, 6, 7, 9, 25, 30, 34, 55, 57, 58, and 63. The difficulty levels of these items range from .85 to .95. There were 9 post test items on which students' performances were relatively poor. From 55 to 67 percent of the students completing the course were unable to respond correctly to the items listed in table 7. The overall lower levels of success for some of these items was the result of a lower performance at one or two of the schools, and not necessarily lower performance at all four schools. An example of this school variation is reflected in item 42, with school

Table 4

Difficulty Levels of the Pretest Items at the Four Schools

Item	Castle	Campbell	Jarrett	Waipahu	Total without Castle
			Difficulty Levels		
1	.76	.63	.57	.86	.73
2	.70	.61	.59	.62	.61
3	.58	.46	.39	.60	.51
4	.94	.92	.87	.87	.88
5	.86	.83	.81	.77	.80
6	.89	.84	.90	.74	.80
7	.89	.81	.83	.77	.79
8	.91	.84	.81	.74	.78
9	.88	.81	.80	.69	.75
10		.69	.67	.61	.64
11		.63	.58	.59	.60
12		.61	.63	.59	.61
13		.40	.55	.46	.46
14		.61	.72	.61	.64
15		.34	.41	.35	.36
16		.35	.34	.28	.31
17		.28	.31	.27	.28
18		.32	.44	.33	.35
19		.46	.41	.38	.40
20		.38	.35	.40	.39
21		.59	.58	.54	.56
22		.27	.26	.32	.30
23		.51	.45	.46	.47
24		.75	.79	.73	.75
25		.88	.82	.79	.82
26		.41	.45	.37	.40
27		.82	.81	.72	.77
28		.33	.43	.32	.35
29		.71	.69	.67	.68
30	.96	.96	.93	.91	.93
31	.50	.44	.45	.48	.46
32	.40	.52	.17	.35	.35
33	.71	.56	.70	.59	.61
34	.87	.82	.82	.82	.32
35	.48	.47	.31	.36	.38
36	.85	.79	.80	.66	.72
37	.44	.40	.36	.33	.36
38	.39	.30	.31	.40	.35
39	.78	.71	.81	.69	.72
40	.63	.62	.54	.49	.54

(continued on next page)

Table 4 (continued)

Item	Castle	Campbell	Jarrett	Waipahu	Total without Castle
		Difficulty Levels			
41	.48	.41	.50	.43	.44
42	.23	.21	.18	.21	.20
43	.68	.72	.81	.69	.73
44	.68	.47	.64	.57	.56
45	.64	.61	.67	.63	.64
46	.54	.52	.44	.49	.48
47	.12	.18	.16	.21	.19
48	.55	.68	.66	.63	.65
49	.61	.57	.64	.44	.52
50	.52	.26	.31	.26	.27
51	.61	.59	.51	.42	.48
52	.66	.59	.56	.54	.56
53	.54	.34	.26	.34	.32
54	.75	.64	.57	.58	.60
55	.86	.90	.94	.88	.90
56	.73	.74	.78	.73	.74
57	.88	.85	.87	.80	.83
58	.89	.85	.78	.79	.80
59	.44	.39	.23	.30	.31
60	.84	.89	.81	.80	.82
61	.69	.67	.66	.67	.67
62	.62	.67	.67	.60	.63
63	.86	.88	.86	.80	.84
64	.66	.67	.55	.60	.60
65	.41	.54	.37	.47	.46
66	.70	.60	.57	.59	.59
67	.48	.57	.41	.43	.46

Table 5

Listing of Pretest Items with High Levels of Prior Mastery

Item No.	Percent Success	Item
4	88	
5	80	Ambition
6	80	Insubordination
25	82	Goal
30	93	In choosing high school courses, one should consider the subjects that are a. best suited to his interests and abilities b. most difficult c. the easiest d. those taken by his close friends
34	82	Intelligence and achievement tests are most useful in predicting success in a. basic school subjects b. athletics c. mechanics d. art
55	90	T.F. Graduation from college guarantees a person success in life
57	83	T.F. Achievement tests measure how much a person has learned
58	80	T.F. An intelligence test is a test of how fast a person can read
63	84	T.F. Success on the job often depends upon wanting to do the work well, along with having the ability to do the work

Table 6

Difficulty Levels of the Post Test Items at the Four Schools

Item	Castle	Campbell	Jarrett	Waipahu	Total
			Difficulty Levels		
1	.73	.67	.83	.87	.78
2	.72	.69	.88	.78	.76
3	.58	.50	.77	.69	.64
4	.94	.95	.95	.93	.94
5	.88	.81	.86	.81	.84
6	.91	.86	.94	.84	.88
7	.87	.80	.90	.83	.85
8	.91	.84	.90	.86	.88
9	.90	.77	.87	.82	.85
10	.69	.69	.78	.67	.70
11	.66	.70	.74	.70	.69
12	.76	.65	.79	.63	.71
13	.59	.38	.73	.56	.57
14	.72	.59	.71	.64	.67
15	.52	.45	.49	.38	.46
16	.44	.41	.52	.36	.42
17	.40	.36	.53	.43	.43
18	.55	.40	.70	.42	.51
19	.58	.59	.67	.46	.56
20	.43	.36	.64	.44	.46
21	.76	.66	.82	.73	.74
22	.36	.30	.64	.39	.41
23	.61	.65	.75	.65	.65
24	.75	.74	.88	.82	.80
25	.89	.87	.88	.88	.88
26	.54	.46	.64	.36	.49
27	.87	.84	.81	.78	.83
28	.50	.37	.65	.33	.45
29	.85	.82	.81	.79	.82
30	.95	.95	.95	.95	.95
31	.52	.38	.48	.48	.48
32	.53	.45	.28	.41	.43
33	.72	.62	.66	.74	.70
34	.87	.91	.81	.84	.86
35	.54	.55	.38	.41	.47
36	.85	.85	.82	.79	.83
37	.50	.50	.39	.46	.46
38	.45	.40	.40	.55	.46
39	.86	.74	.83	.69	.78
40	.64	.69	.54	.64	.63

(continued on next page)

Table 6 (continued

Item	Castle	Campbell	Jarrett	Waipahu	Total
			Difficulty Levels		
41	.54	.48	.53	.51	.52
42	.36	.19	.43	.32	.33
43	.76	.82	.79	.75	.77
44	.69	.66	.70	.71	.69
45	.71	.73	.73	.68	.71
46	.53	.48	.63	.65	.57
47	.23	.21	.39	.48	.33
48	.62	.74	.75	.66	.68
49	.71	.64	.71	.50	.63
50	.61	.36	.70	.30	.49
51	.66	.70	.69	.69	.68
52	.71	.76	.72	.69	.72
53	.59	.48	.41	.44	.49
54	.84	.73	.62	.61	.71
55	.86	.92	.90	.88	.88
56	.78	.73	.69	.68	.73
57	.90	.89	.85	.86	.87
58	.86	.90	.87	.85	.87
59	.48	.32	.19	.30	.34
60	.84	.90	.78	.82	.83
61	.60	.55	.80	.67	.65
62	.65	.69	.63	.57	.63
63	.89	.90	.88	.85	.88
64	.73	.72	.58	.62	.67
65	.41	.36	.29	.53	.42
66	.67	.61	.60	.68	.65
67	.50	.51	.37	.47	.47

Table 7

Listing of Post Test Items with Low Levels of Course Mastery

Item No.	Percent Failure	Item
		Match the following terms with its correct meaning:
16	58	Maladjustment
17	57	Rationalization
22	59	Aptitude
28	55	Versatile
32	57	One of the subjects in social science is a. chemistry b. biology c. economics d. typing
42	67	One of the chief causes of failure on the job is a. being physically unable to do the work b. not having enough education c. not being able to get along with others d. being too young or too old
47	67	The word "norm" best matches a. natural talent b. normal c. averages
59	66	T.F. A vocational aptitude test measure the amount of interest one has in a vocation
65	58	T.F. "Blue collar" jobs mean all jobs that require mechanical work.

difficulty levels of .36, .19, .43, and .32. The difficulty levels of these nine items range from .33 to .45.

Pretest to post test change in difficulty levels may be obtained by a comparison of tables 3 and 5. Performance improvements are more easily obtainable for difficult items than for easy items. This anticipated variation was observed in the pre-post changes. For example, performance on the most difficult item, item 47, changed from .19 to .33 and performance on the least difficult item, item 30, changed from .93 to .95. The items which showed the most substantial improvements in response accuracy were: item 21 from 56 percent to 74 percent success, item 23 from 47 percent to 65 percent success and item 51 from 48 percent to 68 percent success. The decreases in performance which were observed for items 55, 61, and 65 do not represent a loss of knowledge achievement, but rather an unreliable variation in responses.

It should be recognized that the course test is primarily a test of concepts, vocabulary, and informational knowledge. It does not assess the skills and attitudinal objectives for the course. The students' skills and attitudinal attainments may be highly correlated, however, with their cognitive achievements. Measures of the specific skills which the students develop during the course, and ratings of their attitudinal growth should be obtained in further course evaluations.

Teacher Interviews

The teachers at the four participating schools, with primary responsibilities for the course presentation, were interviewed to obtain their opinions about course values and problems. The following teachers were interviewed:

Mr. McKellor at Campbell High School, Mrs. Cummings at Castle High School, Mr. Motsuoka at Jarrett Intermediate School, and Mrs. Zukemura and Mrs. Ouye at Waipahu High School. There were ten teachers involved in teaching a total of 76 classes during the Spring and Fall semesters at the four schools. Seven of the teachers were fully-programmed in the Career Development course. Three of the teachers taught one or two sections, in one or both semesters, and their major teaching responsibilities were in other subject fields.

The departmental or curriculum lodgment of the Career Development course is not defined. The number of course sections and the numbers of teachers involved at each school are not sufficient to qualify for separate departmental status. The teaching major, or prior teaching fields for most of the teachers was Social Studies. Other teaching majors included Agriculture, English, Home Economics, Industrial Arts, and Physical Education. Several of the teachers also had student counseling experiences and background. In two of the schools the course was installed, and the teachers accepted the course assignments without previous in-service training, and without the complete complement of instructional materials. It is recommended that the administrative and curricular questions be considered by school administrators and staff specialists in guidance and curriculum.

As the teachers developed and presented the course at the four schools both teacher variations and school variations occurred. These appeared to be minor variations, however, which will be discussed in further detail. There was a general accord among the teachers in regard to the course objectives and subobjectives. The three major objectives of Self Exploration, Career Exploration and Educational Planning were consistently followed. The teachers

were also inclined to use the same instructional materials, guidance kits, and learner activities to achieve the various learner goals. Much of this communality may have evolved from their participation in summer in-service workshops. The comparability of the students' performances on the course test also provides some evidence of content similarity across schools. Operationally, the teachers regarded the curriculum guide as a source guide. In implementing the course they selected the individual and group learning activities which they felt would be most suited to the students' needs and the course purposes. Because of this there were teacher variations in the unit contents and the instructional procedures for the course.

The ten teachers had an average of 2.3 years experience in the course, ranging from one to four years. Due to this continuing teaching assignment, participation in summer workshops, and the subsequent opportunities for acquiring more instructional materials through other school sources, the teachers were able to concurrently develop and improve the course.

In discussing the attainment of affective objectives the teachers consistently referred to the students' interests and motivation, which were generated by the socially realistic and personally relevant learning experiences. The job application skills which included application interviews, filling out application blanks and interviewing employees about possible summer jobs were consistently identified as realistic, meaningful learning.

Another affective attainment, identified by several of the teachers was the students' intrigue in learning about themselves. The self-awareness objectives, objective introspection, and identification of interests and feelings were recognized as affective achievements. The teachers varied,

however, in the extent to which self exploration and self understanding was emphasized in their classes. This difference could represent different conceptualizations of the purposes of self appraisal. The appraisal of interests, aptitude and abilities may be viewed as a prerequisite to occupational exploration and educational planning. Or, in contrast to this, self-exploration and self-understanding could be regarded as important independent objectives. A relatively high percentage of students had not learned that a "chief cause of job failure is not being able to get along with others" (see course test results). The intrapersonal and interpersonal bases of self and social adjustments may receive less emphasis in some classes than others. Self-appraisal learning may be viewed as subordinate to educational planning and career exploration; or it may be viewed as an independent perceptualization objective.

There were variations in the learning activities and teachers' approaches to decision skills and educational planning. The ninth grade pupils at the 4-year high schools (Waipahu and Campbell) and the tenth grade pupils (Castle H.S.) had in-school opportunities to learn about the H.S. departmental curricula and elective subjects. The ninth grade intermediate school pupils, e.g. Jarrett, would not have the same in-school opportunities for departmental visits and curriculum orientation that were directly available in the four-year high schools Different materials and approaches were used in the four schools to help students acquire educational planning and social decision skills.

The teachers also varied in the extent to which the course was student-centered, using individual learning packets, or teacher-centered, using group instructional activities. These variations were within schools as well as between schools. One of the reasons for the group-centered orientation at one

school was the fact that there was insufficient "hardware" such as tape players and individual slide and film strip viewers to implement the individualized approach. Because the teachers enter into this course assignment from various teaching fields, with various experience backgrounds, they also vary in their preferences for classroom procedures and instructional approaches. These variations may be differentially suited to the backgrounds and needs of the students.

Apparently, the school counselors do not assume an active supplementary role in the Career Development course. Functioning as specialists, they provide individual counseling and guidance services to those students who may come to their offices from these classes. More of the students after taking the Career Development course, are requesting counselors' assistance. The counselors are not involved in team teaching with the Career Development teachers, however, and they do not serve group guidance functions within the classes. The Career Information Centers in the counselors' suite of offices are not systematically used by the students and teachers in the Career Development course, and there are duplicate sets of career information materials in the classes and in the counselors' offices. The counselors may be neglecting this opportunity for participating in curricular guidance, and for developing group teaching and relationship skills. Perhaps some of the summer in-service education could include professional teaming, and role exchanges of counselors and teachers.

Some of the counselor's interview discussions which raised academic and practical questions are rephrased as follows:

"Should there be more resource materials and more course emphasis on island careers', that is, jobs that are available, and will be available in Hawaii?", or "Should students' vocational horizons be extended to continental America, the Pacific Island and to international careers?"

"What is an optimal use of resource speakers, paraprofessionals and other ancillary persons for the course objectives?"

"What in-service training should be available to, or required of, the teachers installing the course in other schools and reassigned from various teaching fields?"

"Can an aptitude test, an interest inventory, and an academic skills battery be administered, scored, profiled, and interpreted within each semester, so that the student can obtain an integrated view of his aptitudes, interests, and academic development?"

The primary purpose for conducting the teacher interviews was to obtain their opinions about the students' affective and skills learning. These attainments were not assessed in the course knowledge test. A secondary purpose was to inquire about the content, materials, and procedures used in the course, to determine the extent to which the curriculum guide was followed. The simplest, and most direct answer to these questions are: 1. there were various interests, motivations and skills achievements that were not specifically evaluated in the course, and 2. the major objectives, subobjectives, and content areas were consistently followed at the four schools; minor variations occurred for specific activities and class procedures.

More importantly, these interviews led to reflective questions that extended beyond the initial purpose. The questions about curricular lodgment, departmental identification, assessing affective and skills development, career horizons, counselor participation, and in-service education are extrapolations and afterthoughts. They are presented here for their possible value in the future development of this course.

Appendix

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Table 8. List of Learning Packets and Discussion Topics	37

(Summer 1971)

NAME_____
(Last Name, First Name)

Period_____

Date_____

COMPREHENSIVE GUIDANCE COURSE TEST

MATCH the following terms with its correct meaning:

_____ 1.	Autobiography	a. The story of your own life.
_____ 2.	Bibliography	b. A rank given by a college to a person who has completed a required course of study.
_____ 3.	Biography	c. A list of books, articles, etc., about a subject.
_____ 4.	Degree	d. A story of a person's life, described by another.

_____ 5.	Ambition	a. Payment to a worker for injury or disease suffered on the job.
_____ 6.	Insubordination	b. Strong desire to succeed or reach a goal.
_____ 7.	Self-confidence	c. Belief in your own ability to do things.
_____ 8.	Social Security	d. Disobedient; not doing as directed.
_____ 9.	Workmen's Compensation	e. Federal government's system of old age unemployment or disability insurance.

_____
(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

_____ 10.	Hobby	a. Free unoccupied time during which a person may play or rest, etc.; spare time.
_____ 11.	Interest	
_____ 12.	Leisure	b. Something a person does as his occupation or duty.
_____ 13.	Vocation	
_____ 14.	Work	c. Something that a person likes to do or study during his spare time.
		d. The liking one may have for a particular kind of activity or experience.
		e. Any trade, profession or occupation; a person's work.

_____ 15.	Frustration	a. Making excuses that are not true.
_____ 16.	Maladjustment	b. Willingness to put up with the different beliefs and opinions of others.
_____ 17.	Rationalization	
_____ 18.	Temperament	c. Not happy or satisfied with one's environment such as family, school, etc.
_____ 19.	Tolerance	
		d. Not being able to do or get something that you want.
		e. How a person usually thinks and acts.

_____
(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

_____ 20.	Ability	a. A person's hobby; work largely done for pleasure
_____ 21.	Apprentice	b. An inborn talent for doing a particular task well.
_____ 22.	Aptitude	c. A person learning a trade by working with a journeyman.
_____ 23.	Avocation	d. A skilled workman; an artisan.
_____ 24.	Craftsman	e. The power to do something physical or mental.

_____ 25.	Goal	a. Having ability to do several things well.
_____ 26.	Skill	b. An object or end that a person tries to reach; aim; objective.
_____ 27.	Self Appraisal	c. To study oneself.
_____ 28.	Versatile	d. Great ability or proficiency; expertness.
_____ 29.	Achievement	e. What a person has done.

_____
(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

MARK the best answer to complete the statements:

30. In choosing high school courses, one should consider the subjects that are

_____ a. best suited to his interests and abilities
_____ b. the most difficult
_____ c. the easiest
_____ d. those taken by his close friends

31. A person planning on attending college should study its entrance requirements before his senior year in order to

_____ a. graduate from high school
_____ b. take the subjects he needs for college studies
_____ c. please his parents
_____ d. prepare for the entrance exams

32. One of the subjects in social science is

_____ a. chemistry
_____ b. biology
_____ c. economics
_____ d. typing

33. A grant of money given to a college student is called

_____ a. tuition
_____ b. an endowment
_____ c. a scholarship
_____ d. a fee

34. Intelligence and achievement tests are most useful in predicting success in

_____ a. basic school subjects
_____ b. athletics
_____ c. mechanics
_____ d. art

_____
(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

35. Education ends when one

_____ a. completes a high school course
_____ b. completes a college course
_____ c. stops learning
_____ d. no longer attends day school or evening courses

36. An elective subject is a subject that

_____ a. may be chosen, but is not required
_____ b. must be taken by all students before their senior year
_____ c. allows only half credit
_____ d. includes only courses in physical education, dramatics, and music

37. An intelligence test is designed to

_____ a. show the mental age or mental capacity of a person
_____ b. measure a person's interests
_____ c. measure a person's mechanical knowledge
_____ d. measure a person's progress in school subjects

38. By the piece-work plan the workman is paid

_____ a. by the year
_____ b. by the week or month
_____ c. according to time spent in doing the work
_____ d. for the amount of work done

39. Reliability is shown when a person

_____ a. gives up pleasure to help another
_____ b. can make exact change quickly
_____ c. can be depended upon to do a job
_____ d. promises to help another when in need

40. When a new machine is invented, it frequently throws many workers out of jobs. This is called

_____ a. technological unemployment
_____ b. the dole system
_____ c. the law of diminishing returns
_____ d. unemployment compensation

_____
(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

41. Vocational success is heavily dependent upon

_____ a. having a related hobby
_____ b. knowing the "right people"
_____ c. right attitudes
_____ d. having a pleasant personality

42. One of the chief causes of failure on the job is

_____ a. being physically unable to do the work
_____ b. not having enough education
_____ c. not being able to get along with others
_____ d. being too young or too old

43. There is no one hobby suitable for everyone due to the fact that individuals have

_____ a. different needs
_____ b. different interests
_____ c. different desires
_____ d. a, b, and c are all correct

44. It is advantageous to choose a hobby that

_____ a. will carry over into adult life
_____ b. will give one joy and happiness
_____ c. bring self-improvement
_____ d. a, b, and c are all correct

45. The word "character" best matches

_____ a. personality
_____ b. attitude
_____ c. physical appearance
_____ d. all of the above

_____
(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

46. The word "percentile" best matches

_____ a. interest inventory
_____ b. rank on a hundred point scale in whatever is measured
_____ c. averages

47. The word "norm" best matches

_____ a. natural talent
_____ b. normal
_____ c. averages

48. In planning your career, one of the important things you should do is to

_____ a. consider pay and prestige
_____ b. visit a private employment agency
_____ c. discover your strengths and weaknesses
_____ d. seek the advice of an astrologist

49. Success in life is dependent to a large extent upon

_____ a. the intelligent choice of a career
_____ b. scoring high on aptitude tests
_____ c. making the honor roll in high school
_____ d. securing a college education

50. A "novice" is

_____ a. an expert
_____ b. a beginner
_____ c. a comical person
_____ d. one who writes novels

51. A "white-collar job" usually means

_____ a. hospital work
_____ b. laundry work
_____ c. collar sewing in a shirt factory
_____ d. employment in office or indoor work

_____

(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

52. The Dictionary of Occupational Titles

_____ a. lists jobs in which students may be successful
_____ b. tells how to find jobs
_____ c. lists all the places where jobs may be found
_____ d. tells the kinds of work done in several thousand

53. A test which measures your academic or scholastic aptitude is called

_____ a. a scholarship test
_____ b. a reading test
_____ c. an intelligence test
_____ d. an occupational interest indicator

_____
(Student's Name)

COMPREHENSIVE GUIDANCE COURSE TEST

CIRCLE True or False:

T F 54. Graduation from college guarantees a person success in life.

T F 55. All high school students should be required to take the same same subjects.

T F 56. It is possible to have a high I.Q. and at the same time be seriously maladjusted.

T F 57. Achievement tests measure how much a person has learned.

T F 58. An intelligence test is a test of how fast a person can read.

T F 59. A vocational aptitude test measures the amount of interest one has in vocation.

T F 60. A person's surroundings may have much influence upon his choice of a career.

T F 61. An aptitude may be explained simply as something in which a person has natural ability.

T F 62. Vocational guidance now is of little value since occupations are constantly changing.

T F 63. Success on the job often depends upon wanting to do the work well, along with having the ability to do the work.

T F 64. It is wise for a person to prepare himself for a family of occupations rather than for a single specific occupation.

T F 65. "Blue collar" jobs mean all jobs that require mechanical work.

T F 66. The term "Standard of Living" means most people earn over fifty dollars a week.

T F 67. The job you finally choose will have all good points because it is what you want.

Table 8

Lists of Individual Learning Packets and Group Discussion Topics

Area: Self Appraisal Learning Packets

1. key words in Self appraisal
2. gather information
3. autobiography
4. home responsibilities
5. changing interests
6. special skills
7. abilities and liabilities
8. vocational decisions
9. scholastic success
10. school grades
11. ability & achievement tests
12. types of tests
13. test scores
14. variability in test scores
15. predicting academic success
16. tests not the sole basis
17. punctuality & dependability
18. personal qualifications - job requirements
19. variations in interests
20. identifying interests
21. exploratory purposes
22. selecting possible occupations
23. fitting jobs to interests
24. aptitudes
25. uniqueness of aptitudes
26. identifying aptitudes
27. individual differences
28. general goals
29. likes & dislikes
30. strengths & weaknesses

Area: Occupation Exploration Learning Packets

1. values of school subjects
2. non-academic activities
3. key words in occupation
4. learning about occupations
5. bad points & good points of jobs
6. job classification
7. skill level classification
8. specialized branches
9. job pay
10. personal satisfaction
11. personal values vs. salary
12. specialization & job tasks
13. advantages of broad preparation
14. using the DOT
15.
16. handicaps
17. attitude & performance
18. unsuitable personalities
19. talents & interests
20. suiting talents to jobs
21. interdependency of jobs
22. jobs & community living
23. job applications
24. letter of application
25. economy & employment
26. influence of public demand
27. historical changes
28. new jobs
29. automation & job changes
30. jobs become obsolete

(continued on next page)

Table 8 (continued)

Area: Educational Planning Learning Packets

1. Key words in educational planning
2. test results - choosing courses
3. academic preparation
4. grade level requirements
5. non-academic activities
6. leisure activities & skills
7. ability level & courses
8. exploratory subjects
9. future course choices
10. planning high school
11. graduation requirements
12. elective courses
13. predicting future achievement
14. choosing electives
15. academic ability & enrollment
16. progressing to advanced skills
17. passed performances
18. specialized training
19. educationl levels
20. higher educational attainment
21. apprenticeship training
22. trade-technical schools
23. foreign language - college admission
24. foreign languages - careers
25. colleges in Hawaii
26. college expenses
27. information on financial aid
28. choosing post high school education
29. individual efforts
30. college on the mainland

Group Discussion Topics

1. Orientation for Students
2. Testing interpretation
3. Why Study Occupations
4. Why do People Work
5. Why Choosing a Career is Continual
6. Major Trends in Employment
7. What is Personality
8. Occupational Outlook
9. Part-time Jobs
10. Factors of Career Development
11. Adjustments from School to Work
12. Disadvantage of Quitting School
13. Industrial Revolution & Automation
14. Should Everyone go to College
15. Leisure time
16. Ways for Finding a Job
17. Job Interview Do's & Don'ts
18. Labor Unions
19. Kinds of Schooling in H.S.
20. Does Education Pay Off
21. On the Job Training